UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,838	02/18/2004	Floyd Backes	160-040	3757

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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/780,838	BACKES, FLOYD
	Examiner	Art Unit	
	Nguyen Ngo	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>18 February 2004</u>.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-3</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-3</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some * c) ☐ None of:

     1. ☐ Certified copies of the priority documents have been received.

     2. ☐ Certified copies of the priority documents have been received in Application No. _____.

     3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The disclosure is objected to because of the following informalities:

a) On page 3 line 15, replace "Figure 8" with --Figures 8A and 8B-- in order to

match drawings;

b) On page 4 line 17, replace "Figure 18" with --Figures 18A and 18B-- in order to

match drawings;

c) On page 6 line 3, replace "Figure 33" with --Figures 33A and 33B-- in order to

match drawings;

d) On page 23 line 1, replace "Figure 8" with --Figures 8A and 8B-- after "to" in

order to match drawings;

e) On page 34 line 6, replace "Figure 18" with --Figures 18A and 18B-- after "in"

in order to match drawings.

Appropriate correction is required.

Double Patenting

2.   The nonstatutory double patenting rejection is based on a judicially created
doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the
unjustified or improper timewise extension of the "right to exclude" granted by a patent
and to prevent possible harassment by multiple assignees. A nonstatutory
obviousness-type double patenting rejection is appropriate where the conflicting claims
are not identical, but at least one examined application claim is not patentably distinct
from the reference claim(s) because the examined application claim is either anticipated
by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29
USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir.
1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422
F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163
USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d)
may be used to overcome an actual or provisional rejection based on a nonstatutory
double patenting ground provided the conflicting application or patent either is shown to
be commonly owned with this application, or claims an invention made as a result of
activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a

terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with

37 CFR 3.73(b).

3.   Claims 1-3 are provisionally rejected on the ground of nonstatutory obviousness-

type double patenting as being unpatentable over claims 1-3 of copending Application

No. 10/780,840 (apparatus) and Application No. 10/780,843 (method). Although the

conflicting claims are not identical, they are not patentably distinct from each other

because the computer program would have been obvious to implement by an apparatus

to perform the method.

This is a <u>provisional</u> obviousness-type double patenting rejection because the

conflicting claims have not in fact been patented.

4.   Claims 1-3 are provisionally rejected on the ground of nonstatutory obviousness-

type double patenting as being unpatentable over claim 1-3 of copending Application

No. 10/780,798. Although the conflicting claims are not identical, they are not

patentably distinct from each other because claims 1-3 of Application No. 10/780,798, is

simply the protocol of the method implemented by the computer program.

This is a <u>provisional</u> obviousness-type double patenting rejection because the

conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
        obviousness or nonobviousness.

7.   Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kallio

(U.S. 2004/0014422 A1) in view of Eng (U.S. 2003/0035442 A1), hereinafter referred to

as Kallio and Eng.

Regarding claim 1, Kallio discloses a method/program for handovers implemented in a

Bluetooth environment, which defines a short-range radio network (paragraphs 4 and

13). Kallio further discloses a method that enables terminal devices to efficiently

transition from a first access point to a second access-point based on service discovery

information that is transmitted by the second access point. The current access point

establishes a link with the terminal device; sends service description data to the terminal

device; and authenticates the link with the second access point using a group key

based on the service description data (wherein multiple channels are available for

communication, paragraphs 13 and 15), comprising:

a terminal device 402 enters a page scan state, where it awaits one or more

paging messages. An access point 406 also enters a paging mode and transmits one or

more paging packets. These paging packets each include an identification number

based on the address of terminal device. Meanwhile, during this step, the terminal

device, which is in page scan mode, responds to the paging packets by transmitting a

packet that includes its address, (sending Announce message to other devices to

indicate the access point's presence and its protocol capability to the other devices and

receiving Bid messages from other devices, wherein a device sends a Bid message to

the access point to indicate that the device desires to communicate in the wireless

communications environment via the access point, figures 8 and 10, paragraphs 134-

135).

an access point receives this packet from terminal device. In response, access

point transmits a frequency hop synchronization (FHS) packet. The FHS packet is used

to pass information that allows terminal device to synchronize with the frequency

hopping sequence of access point. Upon receipt of this FHS packet, terminal device

transmits a further packet to confirm receipt of the FHS packet. Both terminal device

and access point enter into the connection state at this point, (sending an Accept

message to a device in response to a Bid message to indicate that the access point will

allow the device to communicate in the wireless communications environment via the

access point, figures 8 and 10, paragraphs 134-135).

Kallio however fails specifically disclose an exchange of messages prior to the

packets sent during the page scan, correlating to claim messages. Eng however

discloses a method for enabling full service communication between a full-service cable

modem (fsCM) termination system and a plurality of full-service cable modem, wherein

full-service communications include data, voice and video. A multi-channel full-service

media-access-control (fsMAC) coordinates the access to the shared upstream and

downstream channels, (devices in a wireless communications environment wherein

multiple channels are available for communication, abstract). Eng further discloses a

message 700 being sent that identifies an upstream channel (sending claim messages

to other devices and receiving claim messages from other devices, and using the claim

messages it sends and receives to select a channel on which to communicate,

paragraph 67). It would have thus been obvious to a person of ordinary skill in the art at

the time the invention was made to provide a message that identifies a

channel as taught by Eng into the method of Kallio in order to make handovers more

efficient (paragraph 14).

8.   Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kallio

(U.S. 2004/0014422 A1) in view of Eng (U.S. 2003/0035442 A1), in

further view of Idnani et al. (U.S. 200410121765 A1), hereinafter referred to as Kallio,

Eng, and Idnani.

Regarding claim 2, the combination of Kallio and Eng clearly discloses the claimed

invention except that a registration request message and its acknowledgement are

transmitted.   Idnani however discloses a Session Initiation Protocol (SIP) proxy user

agent (UA) to serve as a gateway between a SIP core network and a SIP-unaware

mobile. A new message is described, a combined registration and event subscription

message, which is used by SIP proxy UAs to both register a new contact address for a

mobile and to subscribe to the mobile's contact information. When mobile station (MS)

101 begins obtaining service from base station (BS) 111 it sends a registration request

message to SIP component 120. This registration request message 202 is not a SIP

message, but rather a registration message in accordance with the wireless protocol

utilized by MS. The registration request message is received by SIP proxy UA 123, via

the wireless network interface 121. Acting as a proxy user agent for the mobile station,

SIP proxy UA then sends a combined registration and event subscription message for

MS 101 to SIP registrar/presence server 130 (access point).   Proxy UAs are

responsible for translating the call control messaging between SIP and the appropriate

wireless protocol, (receiving registration request messages from devices, wherein a

device sends a registration request message to the access point to indicate that the

sending device desires to communicate in the wireless communications environment via

the receiving device using the Dynamic Radio Control Protocol, figures 1 and 2,

paragraphs 8, 14-15);

In response to the message, SIP registrar sends SIP OK message to SIP proxy

UA, (sending registration acknowledge messages to devices, wherein the access point

sends a Registration acknowledge message to device in response to a Registration

Request message, to indicate that the access point understands that the device will

communicate in the wireless communications environment using the Dynamic Radio

Control Protocol," (figures 1 and 2, paragraph 30).

Therefore, it would have been obvious to a person of ordinary skill in the art at

the time the invention was made to register, via a proxy, to a server as taught by Idnani

et al. in the method of Kallio, as modified by Eng, in order to efficiently complete a

transition or handover.

9.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kallio

(U.S. 2004/0014422 A1) in view of Eng (U.S. 2003/035442 A1), in further view of Feder

et al. (U.S. 6,522,881 B1), hereafter referred to as Kallio, Eng, and Feder.

Regarding claim 3, the combination of Kallio and Eng fails to disclose choosing the

access point that will provide better wireless communications performance than the current access point.

Feder however discloses a method for use in a wireless communications network that searches for the best serving access point of a base station as a function of communication quality. Each base station 200 includes five access points (AP) that are assigned a different 1MHz channel, (devices in a wireless communications environment wherein multiple channels are available for communication, abstract, column 4 lines 6-11). A wireless modem 270 in a fixed wireless network executes an AP search/selection sequence in response to a triggering event, such as when service quality degrades below a threshold level. After detecting beacons and obtaining a communication link quality metric for each neighboring access point, the wireless modem selects the best access point based on the communication link quality metric (Bid message is sent by a device to the access point if the device ascertains that the access point is likely to provide better wireless communications performance than another access point through which the device is currently communicating, column 2 lines 59-63, column 3 lines 6-10).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to select an access point with the best communication link quality as taught by Feder into the method of Kallio, as modified by Eng, in order to efficiently complete a transition or handover.

Conclusion

7.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Walker (US 2005/0032506), Authenticated Key Exchange Based On Pairwise Master Key.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Ngo whose telephone number is (571) 272-8398. The examiner can normally be reached on Monday-Friday 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing Chan can be reached on (571) 272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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WING CHAN
SUPERVISORY PATENT EXAMINER

6/22/07